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Our Case No. 9281-4121  
Client Reference No. M US00033

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
Tomoya Kamata )  
Serial No. Not Yet Assigned )  
Filing Date: Herewith )  
For: Method for Driving Paper-Feeding )  
Stepping Motor in Thermal Printer )

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to examination of the above-identified application, please amend the application as follows:

**In the Claims**

Please rewrite Claim 1 as follows:

1. (Amended) A driving method for a paper-feeding stepping motor in a thermal printer, the method comprising:
  - driving the paper-feeding stepping motor and feeding recording paper by applying a driving signal with an active pulse;
  - determining a number of heating elements to be energized for recording each line with each color;
  - performing simultaneous divisional energization such that the number of heating elements is not greater than a predetermined number; and
  - subdividing the active pulse while the driving signal is active.

Please rewrite Claim 2 as follows:

2. (Amended) A driving method for a paper-feeding stepping motor in a thermal printer according to Claim 1, the subdividing comprising subdividing the active pulse when a number of divisions for energization of said heating elements is not less than two.

Please rewrite Claim 3 as follows:

3. (Amended) A driving method for a paper-feeding stepping motor in a thermal printer according to Claim 1, the subdividing comprising subdividing the active pulse into a predetermined duty ratio and a predetermined pulse width corresponding to a number of divisions for energization of said heating elements.


Please add new Claim 4 as follows:

4. (New) A driving method for a paper-feeding stepping motor in a thermal printer according to Claim 2, the subdividing further comprising subdividing the active pulse into a predetermined duty ratio and a predetermined pulse width corresponding to the number of divisions.

### REMARKS

Applicant has rewritten portions of Claims 1-3. No new matter has been added as a result of this amendment. The changes from the previous version to the rewritten version are shown in attached Appendix A.

Respectfully submitted,

  
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Gustavo Siller, Jr.  
Registration No. 32,305  
Attorney for Applicant

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200

**APPENDIX A**  
**Attorney Docket No. 9281-4121**  
**Method for Driving Paper-Feeding Stepping Motor in Thermal Printer**  
**Tomoya Kamata**

**In the Claims**

Please amend Claim 1 as follows:

1. (Amended) A driving method for a paper-feeding stepping motor [driving method] in a thermal printer, the method comprising: [for] driving [a] the paper-feeding stepping motor [for] and feeding recording paper by applying a driving signal with an active pulse; [in dynamic division printing in which the] determining a number of heating elements to be energized for recording each line with each color; [is found and] performing simultaneous divisional energization [is performed so] such that the number of heating elements [to be simultaneously energized] is [less] not greater than [or equal to] a predetermined number[, wherein,]; and subdividing the active pulse while [a] the driving signal [to be applied to said paper-feeding stepping motor to be driven in response to the divisional energization of said heating elements] is active[, an active pulse is subdivided].

Please amend Claim 2 as follows:

2. (Amended) A driving method for a paper-feeding stepping motor [driving method] in a thermal printer according to Claim 1, [wherein] the subdividing comprising subdividing the active pulse [is subdivided] when [the] a number of divisions for energization of said heating elements is [more] not less than [or equal to] two.

Please amend Claim 3 as follows:

3. (Amended) A driving method for a paper-feeding stepping motor [driving method] in a thermal printer according to Claim 1, [or 2, wherein] the subdividing comprising subdividing the active pulse [is subdivided] into a predetermined duty ratio and a predetermined pulse width corresponding to [the] a number of divisions for energization of said heating elements.